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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 May 2008*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 1-25 have been considered but are

moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   **Claims 1 and 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Shimizu (US Publication Number 200310137701 A1) in view of Sakata (US Publication

Number 2003/0197794 A1) and further in view of Kurozasa (US Patent Number

6,278,526 B1).

Regarding **Claim 1**, Shimizu'701 shows an image reproduction apparatus

including an image copying function for reproducing input image data including image

data obtained by reading a document, and for outputting the reproduced image data

(i.e., a copy machine copies the image information from an original and outputs

the information. See Paragraphs 4 and 7), the image reproduction apparatus

comprising: operation control means for controlling operation of the image reproduction

apparatus in a similar manner, regardless of whether the operation is associated with

the image copying function or the one or more extension functions provided by the

extension control means **(i.e., the operations control are the same for everything.**

See Paragraphs 57-60); resource sharing means for allowing a resource used in the

image copying function to also be used by the extension control means in inputting

and/or outputting image data **(i.e., the paper is found on the paper unit and when**

any of the functions use paper the all use the paper from the same place. See

Paragraphs 28 and See Figure 1 and 2); image input means for reading an image of

the document and outputting image data of the document image **(i.e., the input the**

scanner and the host computer connected to the apparatus. See Figure 1 and 2);

and image input/output control means for controlling inputting/outputting of image data

depending on an output characteristic of image data output from the image input means

such that the image input means inputs/outputs image data in the same form **(i.e.,**

Controller section. See Figure 1 numeral 110).

Shimizu'701 fails to show an extension control means to which a Controller board

is connectable to add one or more optional units to realize one or more extension

functions, the extension control means allowing operation control in the one or more

extension functions to be performed in a same manner as in the image copying

function, and allowing image data to be input/output in the extension functions in a same

format as in the image copying function, the controller board including a system

controller and an arbiter that arbitrates use of resources shared by the one or more

extension functions.

Sakata'794 teaches an extension control means to which a Controller board is

connectable to add one or more optional units to realize one or more extension

functions, the extension control means allowing operation control in the one or more

extension functions to be performed in a same manner as in the image copying

function, and allowing image data to be input/output in the extension functions in a same

format as in the image copying function, the controller board including a system

controller and an arbiter that arbitrates use of resources shared by the one or more

extension functions **(i.e., extension control means with an expansion board ((or**

external adapter)) with a system controller for the expansion board and with a

judging means that judges management of resources. See Paragraph 76).

Having the system of Shimizu'701 and then given the well-established teaching

of the Sakata'794, it would have been obvious to one having ordinary skill in the art at

the time of the invention was made to modify the system as suggested by the

combination of Shimizu'701 with the teachings of Sakata'794 by adding extension

control means to which a controller board is connectable to add one or more optional

units to realize one or more extension functions, in order to improve the systems

versatility by having more functions available.

The combination of Shimizu'701 and Sakata'794 fails to show an image quality

retaining means for retaining a quality of an image reproduced via the extension control

means at a level similar to that of an image produced by the image copying function.

Kuroza'526 teaches an image quality retaining means for retaining a quality of

an image reproduced via the extension control means at a high level similar to that of an

image produced by the image copying function **(i.e., the image signal processing unit**

includes an image quality correction unit. See Column 7, Lines 4-10).

Having the system of Shimizu'701 and Sakata'794 and then given the well-established teaching of the Kurozasa'526, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Shimizu'701 as taught by the Kurozasa'526 by adding image quality retaining means, since it helps improve the image quality as suggested in reference Kurozasa'526 Column 7, Lines 14-16.

Regarding **Claim 5**, the combination of Shimizu'701, Sakata'794 and Kurozasa'526 shows an image reproduction apparatus wherein the image input means is one of a contact image sensor and a charge coupled device **(i.e., an image sensor or CCD that stands for charged coupled device. See Column 4, Lines 35-37 in reference Kurozasa'526)**.

4.   **Claims 2, 4 and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu (US Publication Number 2003/0137701 A1) in view of Sakata (US Publication Number 2003/0197794 A1) , further in view of Kurozasa (US Patent Number 6,278,526 B1) and further in view of Murata et al. (US Patent Number 6,278,513 B1).

Regarding **Claim 2**, the combination of Shimizu'701, Sakata'794 and Kurozasa'526 (although suggest a resolution conversion) fails to show an image reproduction apparatus with line decimation control means for converting the resolution of the image data; and pixel loss compensation means for compensating for a loss of pixel information caused by line decimation.

Murata'513 teaches an image reproduction apparatus with line decimation control

means for converting the resolution of the image data **(i.e., the line**

thinning/decimation means reduces the lines resolution of the image. See

Column 3, Lines 64-67); and pixel loss compensation means for compensating for a

loss of pixel information caused by line decimation **(i.e., interpolation between lines**

means avoids degradation of resolution of the quality of images. See Column 3,

Lines 42-47).

Having the system of Shimizu'701, Sakata'794 and Kurozasa'526 and then given

the well-established teaching of the Murata'513, it would have been obvious to one

having ordinary skill in the art at the time of the invention was made to modify the

system of Shimizu'701, Sakata'794 and Kurozasa'526 as taught by the Murata'513,

since using line thinning means is a simpler structure and it eliminates the necessity of

raising the secondary scanning speed to process the resolution as suggested in

reference Murata'513 Column 4, Lines 4-10.

Regarding **Claim 4**, the combination of Shimizu'701, Sakata'794, Kurozasa'526

and Murata'513 shows a image reproduction apparatus wherein the line decimation

control means divides a control signal specifying a reading line into a plurality of control

signals and divides a single functional module into a plurality of functions **(i.e., there is**

a plurality of modes/functions where the CPU functions as the decimation means

by reducing the image data in size. See Column 1, Lines 49-60 and Column 10,

Lines 60-65 in reference Kurozasa'526), thereby controlling a density conversion **(i.e.,**

the control signal is used to perform density conversion. See Column 4, Lines 40-50 in reference Kurozasa'526).

Regarding **Claim 7**, the combination of Shimizu'701, Sakata'794, Kurozasa'526 and Murata'513 shows a image reproduction apparatus wherein the line decimation control means performs decimation in an optimum manner; and the pixel loss compensation means performs compensation in an optimum manner depending on whether image data is color image data or monochrome image data **(i.e., the type of image ((color or monochrome)) will decide how optimum is going to be the decimation depending on the image the mode is chosen. See Column 1, Lines 49-60 in reference Kurozasa'526)**.

5.   **Claim 3** is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu (US Publication Number 2003/0137701 A1), in view of Sakata (US Publication Number 2003/0197794 A1), in view of Kurozasa (US Patent Number 6,278,526 B1) and further in view of Feng et al. (US Patent Number 7,312,898 B2).

Regarding **Claim 3**, the combination of Shimizu'701, Sakata'794 and Kurozasa'526 (although suggests transmitting and receiving image data to and from the extension control means) fails to show an image reproduction apparatus comprising data format conversion means for converting a data format of image data such that transmission and reception of image data to and from the extension control means is performed in a same manner, regardless of whether the image data is color image data or monochrome image data.

Feng'898 teaches an image reproduction apparatus comprising data format

conversion means for converting a data format of image data such that transmission

and reception of image data to and from the extension control means is performed in a

same manner, regardless of whether the image data is color image data or

monochrome image data **(i.e., format conversion means that converts the data to**

the chosen format to perform the communication protocol. See Column 1, Lines

6-13).

Having the system of Shimizu'701, Sakata'794 and Kurozasa'526 and then given

the well established teaching of the Feng'898, it would have been obvious to one having

ordinary skill in the art at the time of the invention was made to modify the system of

Shimizu'701, Sakata'794 and Kurozasa'526 as taught by the Feng'898, in order to

improve the system since using format conversion means allows the image

reproduction apparatus support a variety of document types and communication

protocols as suggested in reference Feng'898 Column 1, Lines 11-12.

6.   **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu

(US Publication Number 200310137701 A1) in view of Sakata (US Publication Number

2003/0197794 A1), further in view of Kurozasa (US Patent Number 6,278,526 B1), and

in further in view of Nishij et al. (European Patent Application EP0926622 A2).

Regarding **Claim 6**, the combination of Shimizu'701, Sakata'794, and

Kurozasa'526 fails to show an image reproduction apparatus comprising: sequential line

discrimination/control means for, when color image data is input using a contact image

sensor as the image input means, detecting the color of image data currently being

transmitted and processed and for controlling a reading of a plurality of data lines at a

time on a color-by-color basis.

Nishij'622 teaches an image reproduction apparatus comprising: sequential line

discrimination/control means for, when color image data is input using a contact image

sensor as the image input means, detecting the color of image data currently being

transmitted and processed and for controlling a reading of a plurality of data lines at a

time on a color-by-color basis **(i.e., the process can be equally done for color image**

and monochrome image. See Column 5, Lines 50).

Having the system of Shimizu'701, Sakata'794, and Kurozasa'526 and then given

the well-established teaching of the Nishij'622, it would have been obvious to one

having ordinary skill in the art at the time of the invention was made to modify the

system of Shimizu'701, Sakata'794, and Kurozasa'526 as taught by the Nishij'622, since

applying the process to color images helps improving the system to be.

7.   **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable

over Shimizu (US Publication Number 2003/0137701 A1) in view of Sakata (US

Publication Number 2003/0197794 A1), further in view of Kurozasa (US Patent Number

6,278,526 B1), further in view of Murata et al. (US Patent Number

6,278,513 B1) and in further in view of Yoshiyuki (JP Publication Number 2000-

196881).

Regarding **Claim 8**, Shimizu'701 shows an image reproduction apparatus

including an image copying function for reproducing input image data including image

data obtained by reading a document, and for outputting the reproduced image data

(i.e., a copy machine copies the image information from an original and outputs the information. See Paragraphs 4 and 7), the image reproduction apparatus comprising: operation control means for controlling operation of the image reproduction apparatus in a similar manner, regardless of whether the operation is associated with the image copying function or the one or more extension functions provided by the extension control means **(i.e., the operations control are the same for everything. See Paragraphs 57-60)**; resource sharing means for allowing a resource used in the image copying function to also be used by the extension control means in inputting and/or outputting image data **(i.e., the paper is found on the paper unit and when any of the functions use paper the all use the paper from the same place. See Paragraphs 28 and See Figure 1 and 2)**.

Shimizu'701 fails to show an extension control means to which a Controller board is connectable to add one or more optional units to realize one or more extension functions, the extension control means allowing operation control in the one or more extension functions to be performed in a same manner as in the image copying function, and allowing image data to be input/output in the extension functions in a same format as in the image copying function.

Sakata'794 teaches an extension control means to which a Controller board is connectable to add one or more optional units to realize one or more extension functions, the extension control means allowing operation control in the one or more extension functions to be performed in a same manner as in the image copying function, and allowing image data to be input/output in the extension functions in a same

format as in the image copying function **(i.e., extension control means with an**
expansion board ((or external adapter)) with a system controller for the expansion
board and with a judging means that judges management of resources. See
Paragraph 76).

Having the system of Shimizu'701 and then given the well-established teaching
of the Sakata'794, it would have been obvious to one having ordinary skill in the art at
the time of the invention was made to modify the system as suggested by the
combination of Shimizu'701 with the teachings of Sakata'794 by adding extension
control means to which a controller board is connectable to add one or more optional
units to realize one or more extension functions, in order to improve the systems
versatility by having more functions available.

The combination of Shimizu'701 and Sakata'794 fails to show an image quality
retaining means for retaining a quality of an image reproduced via the extension control
means at a level similar to that of an image produced by the image copying function.

Kuroza'526 teaches an image quality retaining means for retaining a quality of
an image reproduced via the extension control means at a high level similar to that of an
image produced by the image copying function **(i.e., the image signal processing unit**
includes an image quality correction unit. See Column 7, Lines 4-10).

Having the system of Shimizu'701 and Sakata'794 and then given the well-
established teaching of the Kurozasa'526, it would have been obvious to one having
ordinary skill in the art at the time of the invention was made to modify the system of
Shimizu'701 as taught by the Kurozasa'526 by adding image quality retaining means,

since it helps improve the image quality as suggested in reference Kurozasa'526

Column 7, Lines 14-16.

The combination of Shimizu'701, Sakata'794 and Kuroza'526 fails to show a line

decimation control means for converting resolution of the image data; and pixel loss

compensation means for compensating for a loss of pixel information caused by line

decimation.

Murata'513 teaches an image reproduction apparatus with line decimation control

means for converting the resolution of the image data **(i.e., the line**

thinning/decimation means reduces the lines resolution of the image. See

Column 3, Lines 64-67); and pixel loss compensation means for compensating for a

loss of pixel information caused by line decimation **(i.e., interpolation between lines**

means avoids degradation of resolution of the quality of images. See Column 3,

Lines 42-47).

Having the system of Shimizu'701, Sakata'794 and Kurozasa'526 and then given

the well-established teaching of the Murata'513, it would have been obvious to one

having ordinary skill in the art at the time of the invention was made to modify the

system of Shimizu'701, Sakata'794 and Kurozasa'526 as taught by the Murata'513,

since using line thinning means is a simpler structure and it eliminates the necessity of

raising the secondary scanning speed to process the resolution as suggested in

reference Murata'513 Column 4, Lines 4-10.

The combination of Shimizu'701, Sakata'794, Kuroza'526 and Murata'513 fails to

show an invalid pixel detection means for detecting an invalid pixel that causes a streak

image in an image read using a sheet-through document feeder, prior to reading the

image using the sheet-through document feeder; streak image correction means for

correcting the streak image; and warning means for warning of an occurrence of the

invalid pixel.

Yoshiyuki'881 teaches an invalid pixel detection means for detecting an invalid

pixel that causes a streak image in an image read using a sheet-through document

feeder, prior to reading the image using the sheet-through document feeder **(i.e., before**

reading the image using the sheet-through document feeder inaccurate/invalid

pixels are detected. See Paragraphs 3, 6-8 and 48-54); streak image correction

means for correcting the streak image **(i.e., the invalid pixels can cause black stripes**

((streak image)) and this black stripes are amended/corrected. See Paragraphs

48-54); and warning means for warning of an occurrence of the invalid pixel **(i.e., when**

invalid pixels or black stripes/garbage are detected a warning is made. See

Paragraphs 54).

Having the system of Shimizu'701, Sakata'794, Kuroza'526 and Murata'513 and

then given the well-established teaching of the Yoshiyuki'881, it would have been

obvious to one having ordinary skill in the art at the time of the invention was made to

modify the system as suggested by the combination of Shimizu'701, Sakata'794,

Kuroza'526 and Murata'513 with the teachings of Yoshiyuki'881 by adding invalid pixel

detections means, streak image correction means and warning means, in order to

improve the systems efficiency, accuracy and error detections.

8.   **Claims 9-20 and 21-24** are rejected under 35 U.S.C. 103(a) as being

unpatentable over Shimizu (US Publication Number 2003/0137701 A1) in view of

Sakata (US Publication Number 2003/0197794 A1), further in view of Kurozasa (US

Patent Number 6,278,526 B1), further in view of Murata et al. (US Patent Number

6,278,513 B1), in view of Yoshiyuki (JP Publication Number 2000-196881) and in

further in view of Nishij et al. (European Patent Application EP0926622 A2).

Regarding **Claim 9**, the combination of Shimizu'701, Sakata'794, Kuroza'526,

Murata'513 and Yoshiyuki'881 shows an image reproduction apparatus further

comprising: history recording means for recording a history of the occurrence of the

invalid pixel detected by the invalid pixel detection means **(i.e., the invalid pixels**

detections are saved in the memory. See Paragraphs 49-52).

The combination of Shimizu'701, Sakata'794, Kuroza'526, Murata'513 and

Yoshiyuki'881 fails to show blank document page detection means for detecting a blank

document page **(i.e., a blank/empty page is detected. See Column 2, Lines 42-47)**;

blank document page warning means for determining whether a read document page is

blank based on the history of invalid pixel occurrence recorded by the history recording

means and a result of detection made by the blank document page detection means,

and warning, if the read document page is determined to be blank, that the read

document is blank; and reading job control means for controlling an output of a

document read in a reading job in accordance with a result of the determination made

by the blank document page warning means **(i.e., graphic data detector/reader**

controls the recording medium depending the data found. See Column

3, Lines 45-50 and See Column 8, Lines 35-40 and 45-50).

Having the system of Shimizu'701, Sakata'794, Kuroza'526, Murata'513 and

Yoshiyuki'881and then given the well-established teaching of the Nishij'622, it would

have been obvious to one having ordinary skill in the art at the time of the invention was

made to modify the system of Shimizu'701, Sakata'794, Kuroza'526, Murata'513 and

Yoshiyuki'881 as taught by the Nishij'622, since using a blank page detector can

improve the system to not permit to print blank pages that can be another type of invalid

pixel found as suggested in reference Nishij'622 Column 2, Lines 45-46.

Regarding **Claim 10**, the combination of Shimizu'701, Sakata'794, Kuroza'526,

Murata'513, Yoshiyuki'881 and Nishij'622 shows a image reproduction apparatus

wherein the invalid pixel detection means reads a background plate of the sheet-

through document feeder and detects sizes of invalid pixels and a total number of

invalid pixels **(i.e., the invalid pixels detections are saved in the memory and the**

size of the detected invalid pixels can be known. See Paragraphs 43, 49-52 in

reference Yoshiyuki'881).

Regarding **Claim 11**, the combination of Shimizu'701, Sakata'794, Kuroza'526,

Murata'513, Yoshiyuki'881 and Nishij'622 shows a image reproduction apparatus

wherein the invalid pixel detection means manages the history of occurrence of

detected invalid pixels and records the history as invalid pixel occurrence information on

detection result recording means **(i.e., the invalid pixels detections are saved in the**

memory. See Paragraphs 49-52 in reference Yoshiyuki'881).

Regarding **Claim 12**, the combination of Shimizu'701, Sakata'794, Kuroza'526,

Murata'513, Yoshiyuki'881 and Nishij'622 shows a image reproduction apparatus

wherein the blank document page detection means detects a blank document page by

dividing one page of the read document image into a plurality of blocks, detects a total

number of invalid pixels and a number of invalid pixels at successive locations in each

block, and calculates sums of the numbers over all blocks **(i.e., the invalid pixels**

detections can be detected by blocks. See Paragraphs 43-44 and 49-52 in

reference Yoshiyuki'881).

Regarding **Claim 13**, the combination of Shimizu'701, Sakata'794, Kuroza'526,

Murata'513, Yoshiyuki'881 and Nishij'622 shows a image reproduction apparatus

wherein the blank document page detection means detects a blank document page by

dividing one page of the read document image into a plurality of blocks, detects a total

number of invalid pixels and a number of invalid pixels at successive locations in each

block **(i.e., the invalid pixels detections can be detected by blocks. See**

Paragraphs 43-44 and 49-52 in reference Yoshiyuki'881), calculates sums of the

numbers over all blocks, determines from the calculated sums a streak image that is

predicted to occur, subtracts a streak image component caused by successively located

invalid pixels from the document image data, thereby predicting a real state of the

document, and determines from the predicted real state whether the document page is

a blank document page or a document page including a streak image **(i.e., prediction**

formulas are used. See Paragraphs 33-34 and 56-66 in reference Yoshiyuki'881).

Regarding **Claim 14**, the combination of Shimizu'701, Sakata'794, Kuroza'526, Murata'513, Yoshiyuki'881 and Nishij'622 shows an image reproduction apparatus wherein the blank document page detection means manages information indicating whether document pages read in the reading job are blank, in units of document pages, and records the information as blank document page detection information on detection result recording means **(i.e., blank page detector detects blank pages in documents. See Column 2, Lines 40-50 See Figure 2 in reference Nishij'622)**.

Regarding **Claim 15**, the combination of Shimizu'701, Sakata'794, Kuroza'526, Murata'513, Yoshiyuki'881 and Nishij'622 shows an image reproduction apparatus wherein the detection result recording means includes a nonvolatile storage means **(i.e., RAM element 203. See Figure 6 in reference Kurozasa'526)**.

Regarding **Claim 16**, the combination of Shimizu'701, Sakata'794, Kuroza'526, Murata'513, Yoshiyuki'881 and Nishij'622 shows an image reproduction apparatus comprising display means for displaying results of detection made by the invalid pixel detection means and the blank document page detection means **(i.e., the trial mode display a minimize version of the documents to be processed so the user can verify them to see if there is any errors/strikes or blank pages. See Column 2, Lines 34-45 in reference Nishij'622)**.

Regarding **Claim 17**, the combination of Shimizu'701, Sakata'794, Kuroza'526, Murata'513, Yoshiyuki'881 and Nishij'622 shows an image reproduction apparatus comprising image output means for outputting, on paper, results of detection made by the invalid pixel detection means and the blank document page detection means **(i.e.,**

the user checks error/strikes/blank pages and decides if they should be printed

giving a paper record of them. See Column 2, Lines 34-45 and See Column 3,

Lines 45-55 in reference Nishij'622).

Regarding **Claim 18**, the combination of Shimizu'701, Sakata'794, Kuroza'526,

Murata'513, Yoshiyuki'881 and Nishij'622 shows an image reproduction apparatus

wherein results of detection made by the invalid pixel detection means and the blank

document page detection means are transmitted to an external apparatus via

communication means connected to the extension control means **(i.e., the extension**

controller allows control from external devices connected to the scanner, printer

or other extension connected if the detection means can be found on the

extension connected there will be communication between the apparatuses via

the external control means. See Paragraphs 44 and 49 and See Paragraphs 44-46

and 100 See Figure 3 numerals 53 and 49 in reference Shimizu'701).

With regards to method **Claim 19**, the limitation of the claim 19 are corrected by

limitation of claims 1 and 8 above. The steps of claim 19 read into the function step of

claims 1 and 8.

Regarding **Claim 20**, the combination of Shimizu'701, Sakata'794, Kuroza'526,

Murata'513, Yoshiyuki'881 and Nishij'622 shows an image reproduction apparatus

comprising converting a resolution of the image data **(i.e.,**

the line thinning/decimation means reduces the lines resolution of the image. See

Column 3, Lines 64-67 in reference Murata'513); and compensating for a loss of pixel

information caused by line decimation **(i.e., interpolation between lines means**

avoids degradation of resolution of the quality of images. See Column 3, Lines

42-47 in reference Murata'513).

With regards to method **Claim 22**, the limitation of the claim 22 are corrected by

limitation of claims 8, 10 and 13 above. The steps of claim 22 read into the function step

of claims 8, 10 and 13.

With regards to method **Claim 23**, the limitation of the claim 23 are corrected by

limitation of claims 8-9 and 12 above. The steps of claim 23 read into the function step

of claims 8-9 and 12.

With regards to method **Claim 24**, the limitation of the claim 24 are corrected by

limitation of claims 8, 9 and 12-13 above. The steps of claim 24 read into the function

step of claims 8, 9 and 12-13.

9.   **Claims 21 and 25** are rejected under 35 U.S.C. 103(a) as being unpatentable

over Shimizu (US Publication Number 2003/0137701 A1) in view of Sakata (US

Publication Number 2003/0197794 A1), further in view of Kurozasa (US Patent Number

6,278,526 B1), further in view of Murata et al. (US Patent Number 6,278,513 B1), in

view of Yoshiyuki (JP Publication Number 2000-196881), further in view of Nishij et al.

(European Patent Application EP0926622 A2) and in further in view of Feng et al. (US

Patent Number 7,312,898 B2).

Regarding **Claim 21** the combination of Shimizu'701, Sakata'794, Kuroza'526,

Murata'513, Yoshiyuki'881 and Nishij'622 fails to show an image reproduction method

comprising converting a data format of image data

such that outputting of image data is performed in a same manner regardless of

whether the image data is color image data or monochrome image data.

Feng'898 teaches an image reproduction method comprising converting a data

format of the image data such that outputting of the image data is performed in a same

manner regardless of whether the image data is color image data or monochrome

image data **(i.e., format conversion means that converts the data to the chosen**

format to perform the communication protocol. See Column 1, Lines 6-13).

Having the system of Shimizu'701, Sakata'794, Kuroza'526, Murata'513,

Yoshiyuki'881 and Nishij'622 and then given the well-established teaching of the

Feng'898, it would have been obvious to one having ordinary skill in the-art at the time

of the invention was made to modify the system of Shimizu'701, Sakata'794,

Kuroza'526, Murata'513, Yoshiyuki'881 and Nishij'622 as taught by the Feng'898, since

using format conversion means allows the image reproduction apparatus support a

variety of document types and communication protocols as suggested in reference

Feng'898 Column 1, Lines 11-12.

With regards to method **Claim 25**, the limitation of the claim 25 are corrected by

limitation of claims 1, 8-9 and 12-13 above. The steps of claim 25 read into the function

step of claims 1, 8-9 and 12-13.

Conclusion

10.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to IRIANA CRUZ whose telephone number is (571)270-

3246. The examiner can normally be reached on Monday-Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, King Y. Poon can be reached on (571) 272-7440. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/King Y. Poon/   Iriana Cruz
Supervisory Patent Examiner, Art Unit 2625   Examiner
                                                           Art Unit 2625

August 29, 2008

/I. C./
Examiner, Art Unit 2625